

SKA South Africa, IBM in "big data" platform collaboration

SAinfo reports that Square Kilometre Array (SKA) South Africa has announced plans to work with multinational tech giant IBM to develop a next-generation "big data" platform for analysing massive volumes of radio astronomy data, allowing astronomers to observe objects in space more effectively.

SKA South Africa said in a statement the proposed joint research project would combine available radio astronomy analysis software with machine-learning techniques currently under development at IBM Research. South Africa (allied with eight other African countries) is competing against Australia (allied with New Zealand) to host the €1.5-billion SKA, an instrument 50-100 times more sensitive and 10 000 times faster than any radio imaging telescope yet built.

SKA South Africa said that processing big data volumes, whether from scientific instruments, environmental sensors, or international communication and commerce, will require extreme automation and self-learning capability by the software of the future. "More intelligent software is needed to enable astronomers to process and analyse the enormous data rates that will be produced by [...] future radio telescopes," says SKA South Africa's Dr Jasper Horrell. The proposed project with IBM would aim "to teach a computer to make perfect images on its own," says IBM Researcher and exploratory stream analytics specialist Dr Alain Biem. "A software platform like this may assist in enabling large survey instruments [...] to process the trillions of bits of data per second they receive and make it available to astronomers around the world."

According to SAinfo, the international science funding agencies and governments involved in the international SKA consortium are due to make an announcement - possibly on the final winning bid - on 4 April 2012.

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